

WHAT IS CLAIMED IS:

- 1           1.       A method for controlling and providing access to a file to at least one  
2 remote computer over a network, comprising:  
3           maintaining metadata about files maintained at remote storage  
4 locations;  
5           receiving a request from the remote computer for a filename of a  
6 requested file over the network;  
7           determining from the metadata one remote storage location address  
8 associated with the filename where the requested file is located;  
9           updating the metadata for the requested file; and  
10          sending the storage location address to the remote computer.
- 1           2.       The method of claim 1, wherein the remote computer is a source code  
2 management system client.
- 1           3.       The method of claim 1, wherein the storage location address identifies  
2 a storage device that is at a geographical location closer to the remote computer than  
3 a location of the metadata.
- 1           4.       The method of claim 3, wherein the request is for checking-out the  
2 requested file corresponding to the filename, and further comprising:  
3           locking the requested file;  
4           returning a response code to the remote computer indicating that file check-out  
5 is successful; and  
6           updating the metadata indicating that the requested file is checked-out and  
7 locked.
- 1           5.       The method of claim 3, wherein the request is for checking-in the  
2 requested file corresponding to the filename, and further comprising:  
3           updating the metadata indicating the requested file is unlocked; and

4           returning a response code indicating that the file check-in is successful.

1           6.     The method of claim 1, further comprising:  
2           processing a pattern of requests for the file received from remote computers at  
3     different geographical locations;  
4           determining one of a plurality of remote storage locations based on the pattern  
5     of requests for the file;  
6           storing the file corresponding to the file at the determined remote storage  
7     location; and  
8           saving a correspondence between the file and the storage location address in  
9     the metadata.

1           7.     The method of claim 6, wherein the determined remote storage  
2     location is at a geographical location that is more proximate to the remote computer  
3     having more requests for the file than other remote computers.

1           8.     The method of claim 6, wherein the determined remote storage  
2     location is selected from the plurality of remote storage locations to minimize a  
3     distance the requested file is transmitted between each remote computer and the  
4     remote storage location based on the number of requests for the file from each remote  
5     computer.

1           9.     The method of claim 1, wherein the remote computer is a source code  
2     management system client, and the request is one of check-in, check-out, extract,  
3     lock, unlock, delete.

1           10.    A method for accessing a file in a source code management system,  
2     comprising:  
3           sending a first request for a file;

4 receiving a storage location address containing the file in response to the first  
5 request;  
6 sending a second request to the storage location address; and  
7 receiving an access to the file from the storage location address.

1 11. The method of claim 10, wherein the first request is for checking-out  
2 the file, and further comprising:  
3 downloading the file from the storage location address.

1 12. The method of claim 10, wherein the first request is for checking-in  
2 the file, and further comprising:  
3 sending a new version of the file to the storage location address.

1 13. The method of claim 10, further comprising:  
2 receiving a first response code from a remote computer in response to the first  
3 request; and  
4 receiving a second response code from the storage location in response to the  
5 second request.

1 14. A system for controlling and providing access to a file to remote  
2 computers over a network, wherein remote storage locations are accessible over the  
3 network, comprising:  
4 metadata including information about files at the remote storage locations;  
5 means for receiving a request from one remote computer for a filename of a  
6 requested file over the network;  
7 means for determining from the metadata one storage location address of one  
8 remote storage location associated with the filename where the requested file is  
9 located;  
10 means for updating the metadata for the requested file; and

11 means for sending the remote storage location address to the remote  
12 computer.

1 15. The system of claim 14, wherein the remote computer is a source code  
2 management system client.

1 16. The system of claim 14, wherein the storage location address identifies  
2 a storage device that is at a geographical location closer to the remote computer than  
3 a location of the metadata.

1 17. The system of claim 16, wherein the request is for checking-out the  
2 requested file corresponding to the filename, and further comprising:  
3 means for locking the requested file;  
4 means for returning a response code to the remote computer indicating that file  
5 check-out is successful; and  
6 means for updating the metadata indicating that the requested file is checked-out  
7 and locked.

1 18. The system of claim 16, wherein the request is for checking-in the  
2 requested file corresponding to the filename, and further comprising:  
3 means for updating the metadata indicating the requested file is unlocked; and  
4 means for returning a response code indicating that the file check-in is  
5 successful.

1 19. The system of claim 14, further comprising:  
2 means for processing a pattern of requests for the file received from remote  
3 computers at different geographical locations;  
4 means for determining one of a plurality of remote storage locations based on  
5 the pattern of requests for the file;

6 means for storing the file corresponding to the file at the determined remote  
7 storage location; and  
8 means for saving a correspondence between the file and the storage location  
9 address in the metadata.

1 20. The system of claim 19, wherein the determined remote storage  
2 location is at a geographical location that is more proximate to the remote computer  
3 having more requests for the file than other remote computers.

1 21. The system of claim 19, wherein the determined remote storage  
2 location is selected from the plurality of remote storage locations to minimize a  
3 distance the requested file is transmitted between each remote computer and the  
4 remote storage location based on the number of requests for the file from each remote  
5 computer.

1 22. The system of claim 14, wherein the remote computer is a source  
2 code management system client, and the request is one of check-in, check-out,  
3 extract, lock, unlock, delete.

1 23. A system for accessing a file in a source code management system,  
2 comprising:  
3 means for sending a first request for a file;  
4 means for receiving a storage location address containing the file in response  
5 to the first request;  
6 means for sending a second request to the storage location address; and  
7 means for receiving an access to the file from the storage location address.

1 24. The system of claim 23, wherein the first request is for checking-out  
2 the file, and further comprising:  
3 means for downloading the file from the storage location address.

1           25.    The system of claim 23, wherein the first request is for checking-in the  
2 file, and further comprising:

3               means for sending a new version of the file to the storage location address.

1           26.    The system of claim 23, further comprising:

2               means for receiving a first response code from a remote computer in response  
3 to the first request; and

4               means for receiving a second response code from the storage location in  
5 response to the second request.

1           27.    An article of manufacture including code for controlling and  
2 providing access to a file at storage locations on a network to at least one remote  
3 computer over the network, wherein the code is capable of causing operations  
4 comprising:

5               maintaining metadata about files maintained at remote storage  
6 locations;

7               receiving a request from the remote computer for a filename of a  
8 requested file over the network;

9               determining from the metadata one remote storage location address  
10 associated with the filename where the requested file is located;

11              updating the metadata for the requested file; and

12              sending the storage location address to the remote computer.

1           28.    The article of manufacture of claim 27, wherein the remote computer  
2 is a source code management system client.

1           29.    The article of manufacture of claim 27, wherein the storage location  
2 address identifies a storage device that is at a geographical location closer to the  
3 remote computer than a location of the metadata.

1           30.    The article of manufacture of claim 29, wherein the request is for  
2   checking-out the requested file corresponding to the filename, and further comprising:  
3           locking the requested file;  
4           returning a response code to the remote computer indicating that file check-out  
5   is successful; and  
6           updating the metadata indicating that the requested file is checked-out and  
7   locked.

1           31.    The article of manufacture of claim 29, wherein the request is for  
2   checking-in the requested file corresponding to the filename, and further comprising:  
3           updating the metadata indicating the requested file is unlocked; and  
4           returning a response code indicating that the file check-in is successful.

1           32.    The article of manufacture of claim 27, further comprising:  
2           processing a pattern of requests for the file received from remote computers at  
3   different geographical locations;  
4           determining one of a plurality of remote storage locations based on the pattern  
5   of requests for the file;  
6           storing the file corresponding to the file at the determined remote storage  
7   location; and  
8           saving a correspondence between the file and the storage location address in  
9   the metadata.

1           33.    The article of manufacture of claim 32, wherein the determined remote  
2   storage location is at a geographical location that is more proximate to the remote  
3   computer having more requests for the file than other remote computers.

1           34.    The article of manufacture of claim 32, wherein the determined remote  
2   storage location is selected from the plurality of remote storage locations to minimize  
3   a distance the requested file is transmitted between each remote computer and the

4 remote storage location based on the number of requests for the file from each remote  
5 computer.

1 35. The article of manufacture of claim 27, wherein the remote computer  
2 is a source code management system client, and the request is one of check-in, check-  
3 out, extract, lock, unlock, delete.

1 36. A article of manufacture including code for accessing a file in a source  
2 code management system, wherein the code is capable of causing operations  
3 comprising:  
4 sending a first request for a file;  
5 receiving a storage location address containing the file in response to the first  
6 request;  
7 sending a second request to the storage location address; and  
8 receiving an access to the file from the storage location address.

1 37. The article of manufacture of claim 36, wherein the first request is for  
2 checking-out the file, and further comprising:  
3 downloading the file from the storage location address.

1 38. The article of manufacture of claim 36, wherein the first request is for  
2 checking-in the file, and further comprising:  
3 sending a new version of the file to the storage location address.

1 39. The article of manufacture of claim 36, further comprising:  
2 receiving a first response code from a remote computer in response to the first  
3 request; and  
4 receiving a second response code from the storage location in response to the  
5 second request.